BLUE SEAL®

EVOLUTIONSERIES

Gas Salamanders

G91

Service Manual

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WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.

IMPORTANT: MAKING ALTERATIONS MAY VOID WARRANTIES AND APPROVALS.

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Contents

This manual is designed to take a more in depth look at the G91 Salamanders for the purpose of making the units more understandable to service people.

There are settings explained in this manual that should never require to be adjusted, but for completeness and those special cases where these settings are required to change, this manual gives a full explanation as to how, and what effects will result.

Section **Page Number**

1. Specifications 1

2. Installation 3

3. Operation 8

3.1 Description of Controls
3.2 Operation
3.3 Racking
3.4 Explanation of Control System

4. Cleaning / Maintenance 11

5. Trouble-shooting Guide 12

5.1 Trouble-shooting Table
5.2 Fault Diagnosis

6. Service Procedures 15

6.1 Access
6.2 Replacement
6.3 Adjustment / Calibration

7. Accessories 20

8. Exploded Parts Diagrams 21

8.1 G91 Main Assembly
8.2 G91 Gas Assembly
8.3 G91 Racking Assembly

9. Service Contacts 24

Appendix A. Mounting Hole Locations 26

Appendix B. Gas Type Conversion 27

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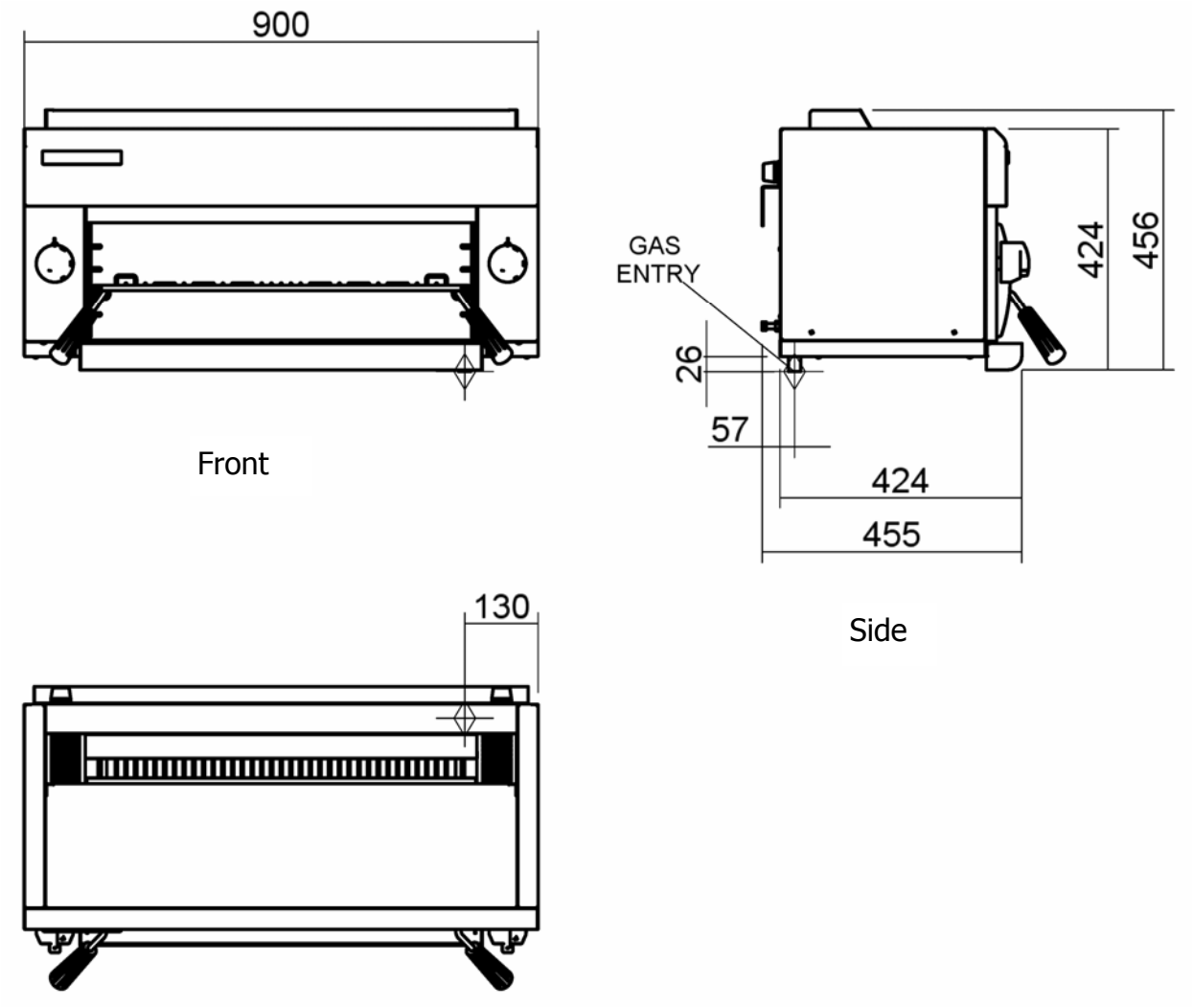
Model Numbers Covered in this Specification

G91 Blue Seal Gas Salamander

External Dimensions



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1 Specifications

Gas Supply (Non-UK models)

	Natural Gas	LPG
Input Rating (N.H.G.C.)	31.5 MJ/hr (29,850 BTU)	31.5 MJ/hr (29,850 BTU)
Supply Pressure	1.13 - 3.40 kPa (4.5" - 13.5 w.c.)	2.75 - 3.40 kPa (11" - 13.5" w.c.)
Operating Pressure	1.0 kPa (*) (4.0" w.c.)	2.5 kPa (*) (10.0" w.c.)
Regulator Spring	Orange	Blue
Gas Connection	$^1/_2$" BSP Male	

Gas Supply (UK models)

	Natural (G20)	Propane (G31)
Heat Input (Gross)	8.8 kW	8.8 kW
Gas Rate	0.84 m^3/hr	0.63 kg/hr
Supply Pressure	20 mbar	37 mbar
Operating Pressure	15 mbar	37 mbar
Regulator Used	Yes	No
Gas Connection	$^1/_2$" BSP Male	

Injector Sizes

	Natural Gas	LPG
Main burner (Non-UK models)	1.90 mm	1.20 mm
Main burner (UK models)	1.65 mm	1.05 mm
Pilot burner	0.30 mm	0.20 mm

Salamander Internal Dimensions

	Width	Depth	Height
G91	685 mm	330 mm	230 mm (at front)

Cooking Area

Rack Size	610mm x 310mm
Branding Plate (accessory)	610mm x 310mm

Weight (Net)

G91	41kg

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Installation Requirements

NOTE: It is most important that this salamander is installed correctly and that operation is correct before use. Installation shall comply with local electrical, gas, health and safety requirements.

Blue Seal Salamanders are designed to provide years of satisfactory service, and correct installation is essential to achieve the best performance, efficiency and trouble-free operation.
This appliance must be installed in accordance with National installation codes and in addition, in accordance with relevant National / Local codes covering gas and fire safety.

AUSTRALIA:	- AS5601	- Gas Installations.
NEW ZEALAND:	- NZS5261	- Gas Installation.
UNITED KINGDOM:	- Gas Safety (Installation & Use) Regulations 1998.	
	- BS6173	- Installation of Catering Appliances.
	- BS5440	- 1 & 2 Installation Flueing & Ventilation.
IRELAND:	- IS 820	- Non - Domestic Gas Installations.

Installations must be carried out by qualified service persons only. Failure to install equipment to the relevant codes and manufacturer's specifications shown in this section will void the warranty.
Components having adjustments protected (e.g. paint sealed) by the manufacturer are only allowed to be adjusted by an qualified service person. They are not to be adjusted by the installation person.

Unpacking

- Remove all packaging and transit protection from the appliance including all protective plastic coating from the exterior stainless steel panels.
- Check equipment and parts for damage. Report any damage immediately to the carrier and distributor.

1 x Salamander Rack.

1 x Trough Tray.

1 x Gas Regulator.

1 x Alternate Gas Conversion Kit.

1 x Wall Mounting Bracket, including;

- 2 x 25mm Black Plastic Spacers.
- 2 x $^{3}/_{8}$" Bolts / Nuts.

- Report any deficiencies to the distributor who supplied the appliance.
- Check that the available gas supply is correct to that shown on the rating plate located on the front bottom corner of the right hand side panel.
- Check that the following parts have been supplied with the appliance:

Location

1. Installation must allow for a sufficient flow of fresh air for the combustion air supply.

Combustion Air Requirements

Natural Gas	**9m³/hr minimum.**
LPG / Propane	**9m³/hr minimum.**

2. Installation must include adequate ventilation means, to prevent dangerous build up of combustion products.

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3. This appliance must be mounted onto a non-combustible wall or tailored stand, using the rear wall bracket and spacing screws provided.
4. Combustible walls must not protrude past the front of the appliance.
5. This appliance must not be mounted on a combustible surface or metal surface, as radiated heat will cause these surfaces to become extremely hot.
6. Caution should be taken as intense heat is emitted at the bottom front of the appliance.
7. Components having adjustments protected (e.g. paint sealed) by manufacturer are only allowed to be adjusted by an authorised service agent. They are not to be adjusted by the installation person.
8. The unit should be mounted under an extraction hood in compliance with all local regulations.

In the event that the unit is not mounted under an extraction hood, the installer must ensure that all regulations are met and that there is an unobstructed minimum distance of 750mm from the top surface of the unit to the ceiling, which must be of non-combustible material.

NOTE: Do not obstruct or block the appliances flue. Never directly connect a ventilation system to the appliance flue outlet.

Clearances

	Combustible Surface	Non-Combustible Surface
Left/Right hand side	100 mm	25 mm (*)
Rear	30 mm (**)	30 mm (**)
Top Clearance to:		
- Extraction Hood		200 mm
- Ceiling (***)		750 mm

NOTE: Only non-combustible materials can be used in close proximity to this appliance.
This unit must be installed on a non-combustible wall or tailored stand with the following clearances;

* We recommend allowing a clearance of 100mm on either side of the appliance to allow access to the side panels for servicing purposes.
** Using the wall mounting accessories provided with this appliance.
*** Top clearance to ceiling is subject to all local regulation requirements.

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Wall Mounting (to non-combustible wall only)

1. Fix the wall mounting bracket to the wall with six screws, in such a position that the top of the bracket is level and at least 945mm (38") above any surface beneath the unit. This will ensure that the bottom of the Salamander is at least 600mm (24") above any surface.

2. Fit the two black plastic spacers to the top rear corners of the unit. Leave them unscrewed by approximately 5mm.

3. Fit the two adjusting screws / bolts into the nutserts at the bottom rear corners of the unit. These should protrude approximately 30mm from the rear of the Salamander.

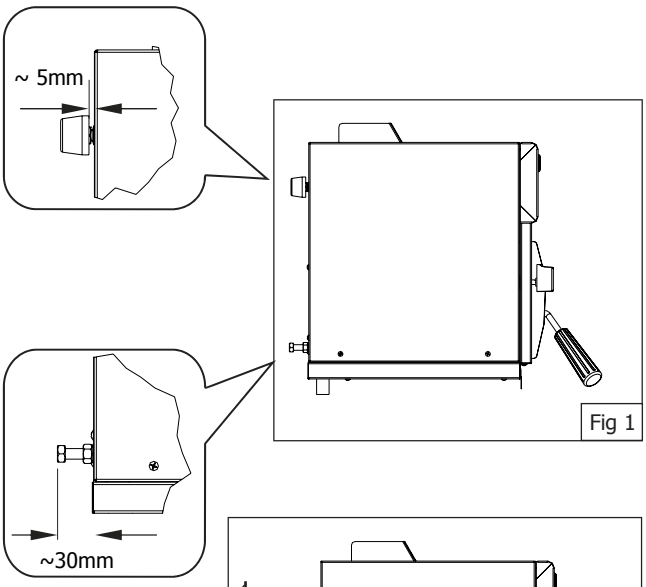

Fig 1

4. Lift the Salamander onto the wall bracket, lining up the black plastic spacers on the salamander with the mounting notches in the bracket.

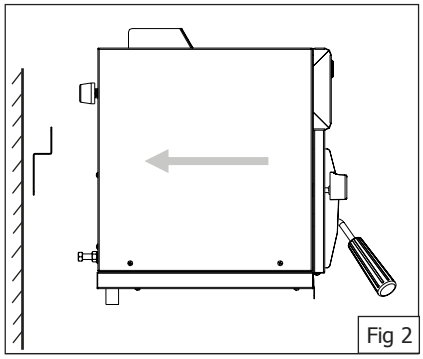
Fig 2

5. Lower the Salamander onto the mounting bracket.

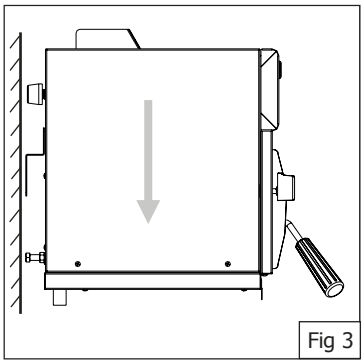
Fig 3

6. Tighten the black spacers securely and adjust the levelling screws/bolts to ensure that the unit is level.

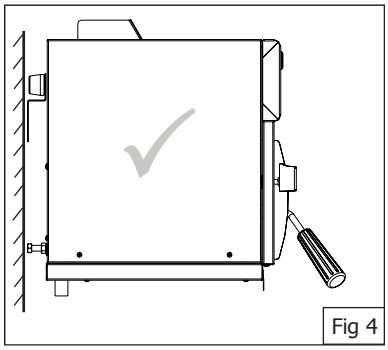
Fig 4

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Gas Connection

NOTE: ALL GAS FITTING MUST ONLY BE CARRIED OUT BY A QUALIFIED SERVICE PERSON.

1. Blue Seal Salamanders do not require an electrical connection, as they function totally on the gas supply only.
2. It is essential that the gas supply is correct for the Salamander to be installed and that adequate supply pressure and volume are available. The following checks should therefore be made before installation:-

   a. **Gas Type** the appliance has been supplied for, is shown on a coloured stickers located above the gas connection and next to the rating plate. Check that this is correct for the gas supply the appliance is being installed for. The gas conversion procedure is detailed in this manual.

   b. **Supply Pressure** required for this appliance is shown in the "Specifications" section of this manual. Check the gas supply to ensure adequate supply pressure exists.

Fig 5

   c. **Input Rate** of this appliance is stated on the Rating Plate and in the "Specifications" section of this manual. The input rate should be checked against the available supply line capacity. **Particular note should be taken if the salamander is being added to an existing installation.**

NOTE: It is important that adequately sized piping runs directly to the connection joint on the appliance with as few tees and elbows as possible to give maximum supply volume.

3. Fit the gas regulator supplied, into the gas supply line as close to the appliance as possible.
   The regulator connections are $^1/_2$" BSP female.
   The connection to the appliance is $^1/_2$" BSP male.
   (Refer to the the "Specifications" section for the gas supply location dimensions).

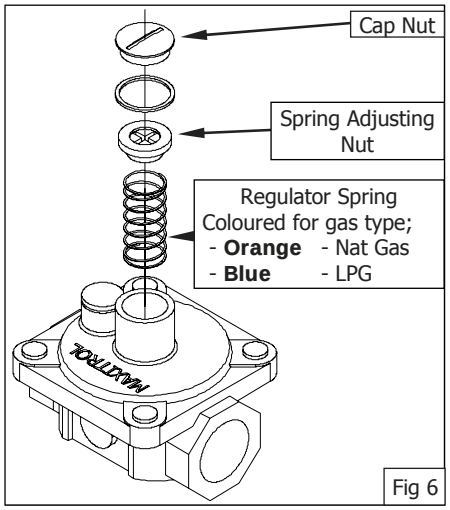

Fig 6

NOTE: A Manual Isolation Valve must be fitted to the individual appliance supply line.

4. Ensure the regulator has the correct colour spring fitted for the gas type, as detailed in the "Specifications" table. Opposite gas type replacement spring is part of the gas conversion kit supplied.
5. Correctly locate the appliance into its final operating position and using a spirit level, adjust the legs so that the unit is level and at the correct height.

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6. Connect gas supply to the appliance. A suitable jointing compound which resists the breakdown action of LPG must be used on every gas line connection, unless compression fittings are used.
7. Check all gas connections for leakages using soapy water or other gas detecting equipment.

WARNING:

DO NOT USE A NAKED FLAME TO CHECK FOR GAS LEAKAGES.

8. Check gas operating pressure is as shown in "Specifications" section.
9. Adjust the regulator spring adjusting nut to set the gas operating pressure at the correct value shown in the "Specifications" section.

NOTE: The operating pressure to be measured at the manifold test point and with all burners operating at the "High Flame" setting.

10. Turn off the mains gas supply and bleed the gas out of the appliance gas lines.
11. Turn on the gas supply and the appliance.
12. Verify the operating pressure remains correct (Re-adjust the regulator if required).

Commissioning

1. Before leaving the new installation;
   a. Check the following functions in accordance with the operating instructions specified in the "Operation" section of the User manual.
      - Light the Pilot Burners.
      - Light the Main Burners.
      - Check the Low Fire burner operation.
      - Check the High Fire burner operation.
      - Check the Racking System operation.

   b. Ensure that the operator has been instructed in the areas of correct lighting, operation, and shutdown procedure for the appliance.

2. The User manual must be kept by the owner for future reference, and a record of ***Date of Purchase, Date of Installation*** and ***Serial Number of Unit*** recorded and kept with the manual. **(These details can be found on the Rating Plate attached to the R/H side panel (refer to the "Gas Connection" section).**

NOTE: If for some reason it is not possible to get the unit to operate correctly, shut off the gas supply and contact the supplier of this unit.

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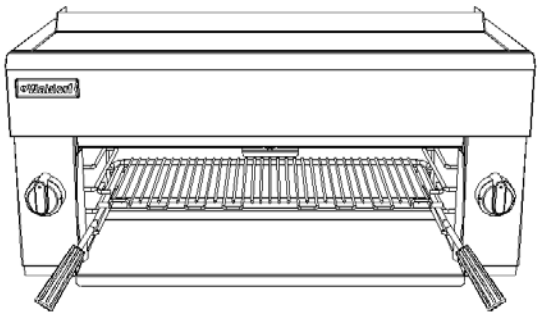
3 Operation

NOTE: A full user's operation manual is supplied with the product and can be used for further referencing of installation, operation and service.

3.1 Description of controls

- Blue Seal salamanders provide two independently controlled heat zones.
- High speed grilling is provided by the two in-frared gas burners in the ceiling of the grilling compartment.
- The left hand gas control knob and right hand gas control knob operate the left side and right side burners respectively, independently of each other.
- Each burner is provided with a manually lit pilot burner and flame failure protection.



Gas Control Knobs

O OFF Position

PILOT Burner

HIGH Flame

LOW Flame

3.2 Operation

Lighting the pilot burners

1. Check that the gas supply is turned on.
2. Push in the left gas control knob and turn to the PILOT position.
3. With the gas control knob depressed, manually light the pilot burner located in the top right and left hand sides within the cooking area of the unit.
4. Hold in the control knob for approximately 10 to 15 seconds, then release.
5. The pilot burner should remain alight. If not, repeat **Items 2 to 4** above until the pilot burner lights.
6. Repeat **Items 2 to 4** above with the right gas control knob to ignite the right hand pilot burner.

Lighting the main burners

1. Ensure that pilot burners are alight by looking in the top right and left hand sides within the cooking area of the unit. The pilot burners will be seen burning.
2. Rotate the control knob anti-clockwise to the position marked HIGH .
3. The main burner will now ignite automatically off the pilot burner.
4. Once lit the main burner will be burning at full rate. For a lower heat, push in the gas control knob and turn fully anti-clockwise to the LOW position.
5. Also for intermediate heat, position the control knob between the HIGH and LOW positions.
6. Repeat **Items 1 to 5** to light the second main burner.

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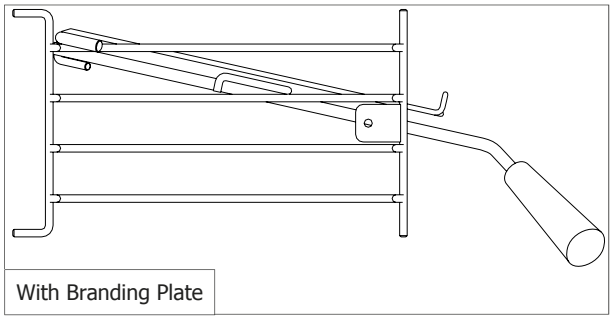
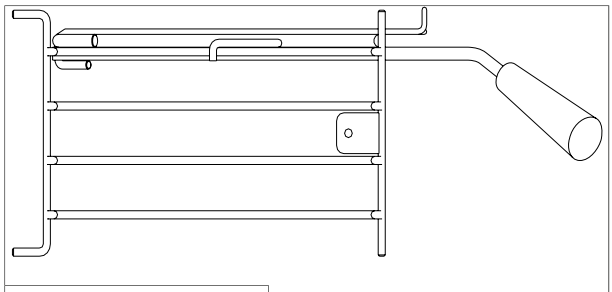
3.3 Racking

Racking System

The Rack System fitted to the Blue Seal Salamander is self-supporting when withdrawn, to allow easy loading of food. The installation of the rack is dependant on the cooking function required.



With Branding Plate



Without Branding Plate

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3.4 Explanation of Control System

Safety System

The purpose of the safety system is to shut off the flow of gas if the pilot flame goes out. It is comprised of the flame itself, the thermocouple, and the flame failure gas valve.

The pilot flame is lit by holding in the gas control knob, which in turn temporarily pushes the plunger inside the safety valve open and allows gas to flow through. Once the burner is lit, the thermocouple will begin to generate millivolts (after about 10 to 30 seconds of being heated) and will energize the electromagnet inside the gas valve. Once energized the electromagnet holds the plunger inside the gas valve in the open position. The plunger has to have been pushed all the way in for the electromagnet to be able to hold it in place. If the burner flame goes out for some reason, the thermocouple will cool after about 10 to 30 seconds and stop generating millivolts. The electromagnet will then de-energize, and the plunger will snap shut, cutting off the flow of gas.

Detail of each component in the safety system is explained below.

Thermocouple

The thermocouple is a device that generates electricity when heat is applied to the tip.

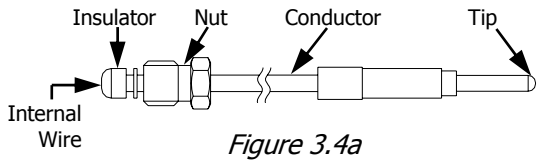

Figure 3.4a

The tip of the thermocouple is located in the pilot burner flame, and the nut at the other end of the thermocouple screws into the back of the gas valve. Inside the copper tubing is a wire which is joined at the tip but insulated from the rest of the tubing. These two parts (the copper tubing and wire) make up the "wiring" for an electrical circuit. When these two dissimilar metals, wire and tip, are heated an electrical voltage is produced. This type of thermocouple generates between 7 and 30 millivolts when heated in the pilot flame.

Electromagnetic Flame Failure Gas Valve

The purpose of the safety valve is to shut off the flow of gas if the pilot flame goes out.

Inside the body of the gas valve is an electromagnet connected to a spring loaded plunger. When the electromagnet is energized, it holds the plunger in, allowing gas to flow through the valve. When the electromagnet is de-energized, the plunger snaps to the closed position, stopping the flow of gas.

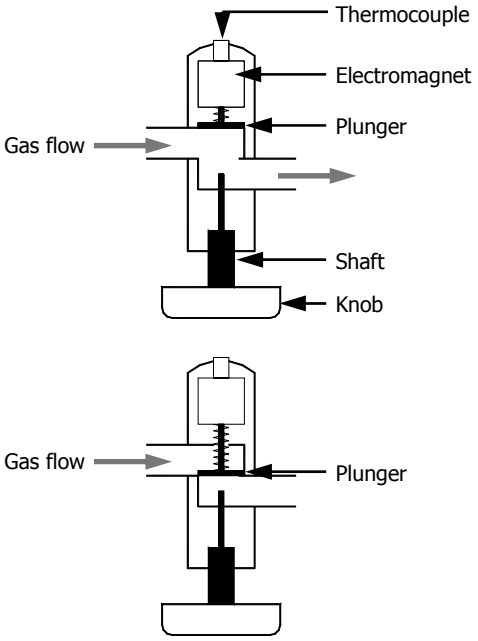

Figure 3.4b

Millivolts are provided to the electromagnet by the thermocouple (not shown) which generates millivolts when heated. The thermocouple screws into a fitting at the back of the gas valve to make an electric connection. By pressing in the gas control knob, the plunger can be temporarily held open while lighting. There's two reasons for this; gas has to flow through the safety valve to make it possible to light the pilot burner, and secondly the plunger has to be pushed all the way in for the electromagnet to hold it in. I.e.; the electromagnet is strong enough to hold the plunger in once there, but is not strong enough to pull it in by itself. Sometimes a problem with the flame not staying lit after releasing the button can be attributed to not pushing the plunger all the way in.

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CAUTION:

Always turn off the gas supply before cleaning.

This unit is not water proof.

Do not use water jet spray to clean interior or exterior of this unit.

4.1 Cleaning

General

To achieve the best results, cleaning must be thorough, and all controls and mechanical parts checked and adjusted periodically by a competent serviceman. If any small faults occur, have them attended to promptly.

Don't wait until they cause a complete breakdown.

Racking

For ease of cleaning of this unit and the racking system and to achieve the best results, it is recommended that the racking is removed completely from the unit and cleaned independently This will allow for a more thorough cleaning of the Salamander.

To remove the racking system, carry out the following instructions.

Remove the Grease / Crumb Tray from the underside of the salamander unit.

Remove the Branding Plate from the rack (If fitted).

Slide the rack out of the side racks and remove from the unit.

Stainless surfaces

Clean with detergent. Baked on deposits or discolouration may require a good quality stainless steel cleaner or stainless steel wool. Always apply the cleaner when the Salamander is cool and rub in the direction of the "grain".

Enamelled surfaces

Do not use wire brushes, steel wool or other abrasive material. Clean the enamelled surfaces regularly with a good quality domestic oven cleaner. Remove the rack and side racks from the Salamander - this allows easy cleaning of the flat enamelled side walls. Leave the tray in to collect all residue.

Grease / Crumb Tray

Empty and clean daily.

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5 Trouble-shooting

WARNING: ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.

5.1 Trouble-shooting chart

Fault	Possible Cause	Remedy
Pilot won't light	Knob on gas control won't go fully in.	Remove obstruction. Correct control panel mounting. Replace gas control. **(Refer service section 6.2.6)**
	No gas supply.	Ensure gas is connected and on (bottles not empty).
	Gas pressure too low.	Check gas supply pressure. **(Refer specifications section)**
	Blocked pilot injector.	Clean or replace pilot injector. **(Refer service section 6.2.3)**
Pilot flame small	Gas pressure too low.	Check gas supply pressure. **(Refer specifications section)**
	Pilot injector restricted.	Clean or replace pilot injector. **(Refer service section 6.2.3)**
Pilot goes out when knob released	Releasing knob before the thermocouple is heated.	Hold control in for longer (10 s), see if pilot will stay lit.
	Pilot flame too small. **(Refer fault:Pilot Flame Small)**	Correct fault.
	Thermocouple faulty. **(Refer fault diagnosis 5.2.1)**	Replace thermocouple. **(Refer service section 6.2.1)**
	Gas magnet faulty. **(Refer fault diagnosis 5.2.1)**	Replace gas magnet. **(Refer service section 6.2.7)**
Pilot goes out when main burner comes on	Incorrect gas pressure.	Check supply / adjust pressure. **(Refer specifications section)**
	Faulty gas control.	Replace gas control. **(Refer service section 6.2.6)**
Main burners will not light	Wrong size or blocked injectors.	Replace / clean injectors. **(Refer service section 6.2.5)**
	Small pilot flame. **(Refer fault:Small Pilot Flame)**	Correct fault.
	Incorrect supply pressure.	Check supply correct pressure.
	Faulty gas control.	Replace gas control. **(Refer service section 6.2.6)**

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Fault	Possible Cause	Remedy
Burner flame incorrect colour / flame not stable	Incorrect supply pressure.	Check supply pressure.
	Pilot too small. **(Refer fault: Pilot flame small)**	Correct fault.
	Incorrect injector sizes.	Check injector sizes and replace if necessary. **(Refer service section 6.2.5)**
	Injector blocked.	Clean injector. **(Refer service section 6.2.5)**
Burner popping / blow back	Gas leak in burner plaque. **(Refer fault diagnosis 6.1.2)**	Replace burner. **(Refer service section 6.2.4)**
Lack of glowing. Large haze beneath burner	Incorrect gas supply pressure.	Check the gas pressure at the pressure test point.

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5.2 Fault Diagnosis

5.2.1 Pilot drops out when gas knob released

Pilot flame too small

If pilot can be lit but the flame is too small to impinge on the thermocouple, then check the gas pressure. If ok, remove pilot injector from pilot burner and check for blockages and/or correct size.

Thermocouple faulty

Check thermocouple connection to gas control is firm (loose connections will cause resistance in millivolt circuit and result in pilot outage).

If connection is OK, then disconnect the thermocouple from the rear of the gas control, light the pilot, and whilst holding the control knob in, and measure voltage between the thermocouple and earth (e.g. the body of the gas control). This should read approximately 30mV. If this reading is less than 10mV then the thermocouple is faulty—replace.

Gas magnet faulty

If thermocouple milli-voltage is above 10mV, and the pilot still will not hold, then the gas magnet is faulty - replace.

5.2.2 Burner popping / Blow back

Gas leak in burner plaque

With burner operating check for hairline cracks (these appear as brighter orange lines on burner tiles). If visible, replace burner.

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Section **Page Number**

6.1 Access 16

6.1.1 Control Panel 16
6.1.2 Side Panel 16

6.2 Replacement 16

6.2.1 Thermocouple 16
6.2.2 Pilot Burner 16
6.2.3 Pilot Injector 17
6.2.4 Main Burner 17
6.2.5 Main Burner Injectors 18
6.2.6 Gas Control Valve 18
6.2.7 Gas Control Magnet 18

6.3 Adjustment 19

6.3.1 Gas Control Re-greasing 19
6.3.2 Low Fire Screw Adjustment 19

WARNING:

ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY.

ENSURE GAS SUPPLY IS SWITCHED OFF BEFORE SERVICING

ALWAYS CHECK / TEST FOR GAS LEAKS AFTER SERVICE REPAIRS ON THE GAS SYSTEM

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6.1 Access

6.1.1 Control panel

1) Remove control knob.
2) Undo the two screws at the bottom of the control panel, and remove.

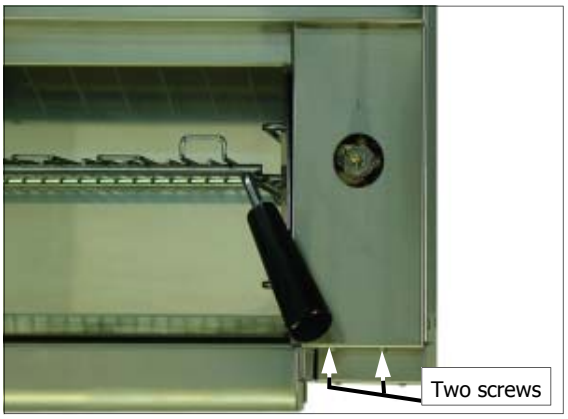

Figure 6.1.1

6.1.2 Side panel

1) Undo the two screws near the bottom of the side panel to be removed.
2) Lift the side panel and remove from the salamander.

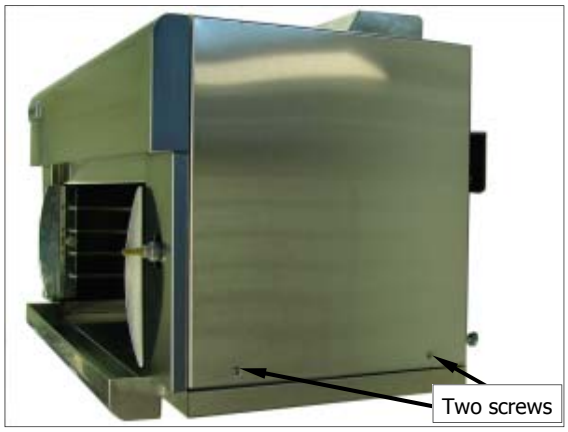

Figure 6.1.2

6.2 Replacement

6.2.1 Thermocouple

1) Remove the side panel (refer 6.1.2).
2) Unscrew the thermocouple from the rear of the gas control.
3) Undo the clamp on the pilot burner holding the thermocouple in place (secured by one screw). Withdraw the thermocouple from the pilot assembly.
4) Replace and reassemble in reverse order.

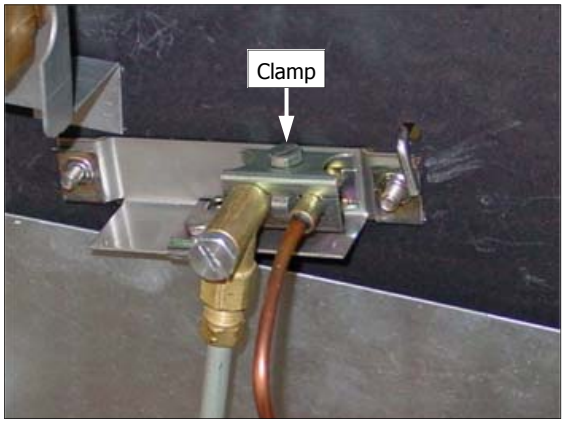

Figure 6.2.1

IMPORTANT:

WHEN SCREWING THERMOCOUPLE BACK INTO THE GAS CONTROL, ONCE THREADED UP, TIGHTEN UP ANOTHER ¼ TURN ONLY. **DO NOT OVER TIGHTEN.**

6.2.2 Pilot burner

1) Remove the side panel (refer 6.1.2)
2) Undo the pilot supply tube from either the pilot burner or the gas control valve.

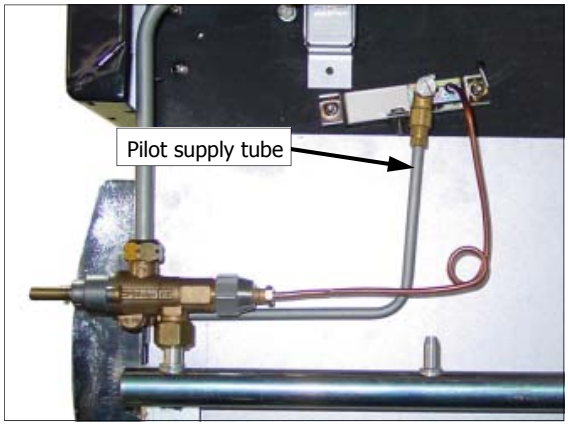

Figure 6.2.2a

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3) Undo the clamp on the pilot burner holding the thermocouple in place (secured by one screw). Withdraw the thermocouple from the pilot assembly.

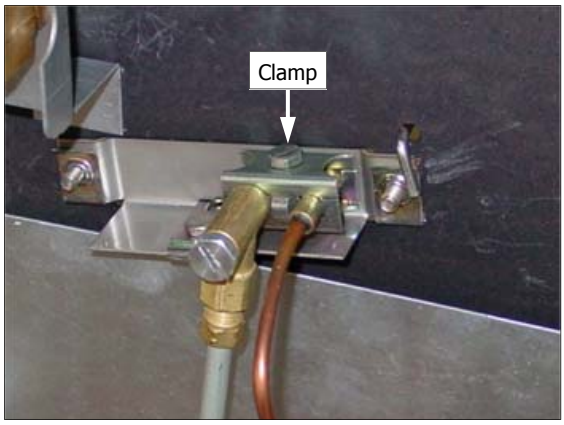

Figure 6.2.2b

4) Unclip the burner guard, then remove the two screws securing the pilot bracket (inside salamander). Withdraw the pilot burner and bracket.
5) Fit new pilot burner to bracket, and re-assemble in reverse order.
6) Ensure that the correct size pilot injector is fitted to the pilot burner:

Nat Gas	0.30mm
LPG	0.20mm

Refer to section 6.2.3 below for pilot injector replacement.

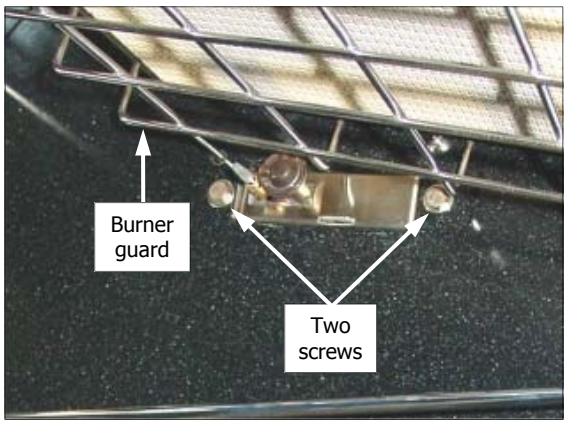

Figure 6.2.2c

6.2.3 Pilot injector

1) Remove the side panel (refer 6.1.2)
2) Undo the cap from the rear of the pilot burner to give access to the injector.
3) Unscrew the pilot injector.

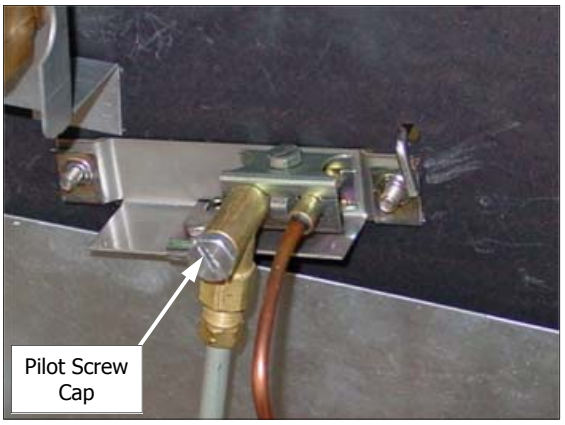

Figure 6.2.3a

4) Extract the injector from the pilot burner, taking care not to lose the spring.
5) Replace or clean the injector as necessary. When reassembling, ensure that the injector is fully screwed in.

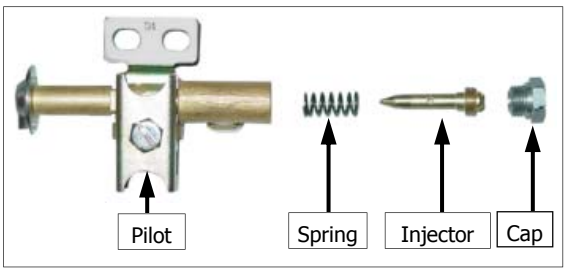

Figure 6.2.3b

6.2.4 Main burner

1) Remove the side panel (refer 6.1.2).
2) Remove the burner guard by pulling it down from the centre fastenings and then removing it from the mounting holes in the side wall.
3) Remove the two centre fixing screws and remove the centre bracket.

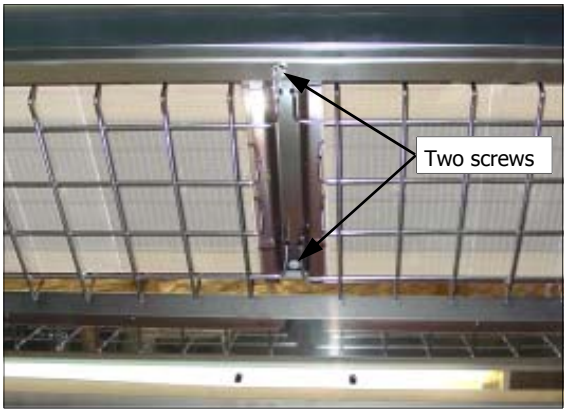

Figure 6.2.4a

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4) Holding the burner, remove the two screws located in the control area which fix to the burner flange. The burner can now be removed.

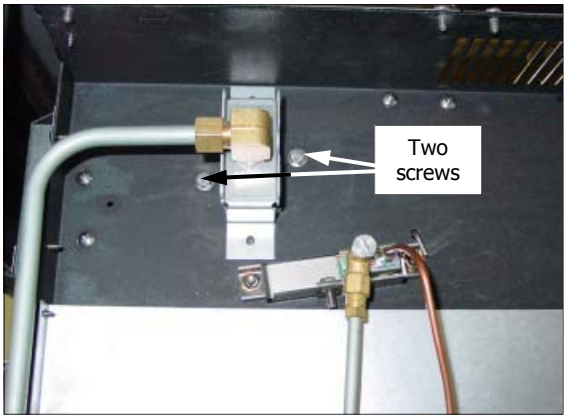

Figure 6.2.4b

5) Replace and reassemble in reverse order

6.2.5 Main burner injectors

1) Remove the side panel (refer 6.1.2).
2) Unscrew the main burner injector.

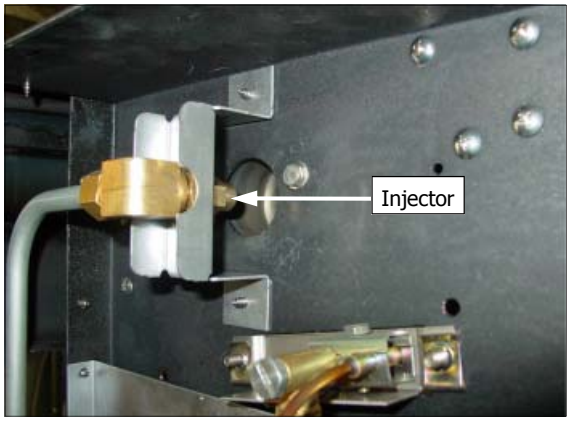

Figure 6.2.6

3) Clean or replace injector and reassemble in reverse order.

NOTE: It is important that the injector aligns centrally with the burner venturi.

6.2.6 Gas control valve

1) Remove the side panel (refer 6.1.2), and remove the knob from the gas control.
2) Disconnect the thermocouple, pilot supply tube, and main burner supply tube from the gas control.
3) Undo the nut securing the gas control inlet to the supply manifold.
4) Extract the gas control, replace and reassemble in reverse order.

Figure 6.2.6

6.2.7 Gas control magnet

1) Remove side panel (refer 6.1.1).
2) Unscrew the thermocouple from the rear of the gas control.
3) Remove the rear nut from the gas control.
6) Extract gas magnet.
7) Replace and reassemble in reverse order.

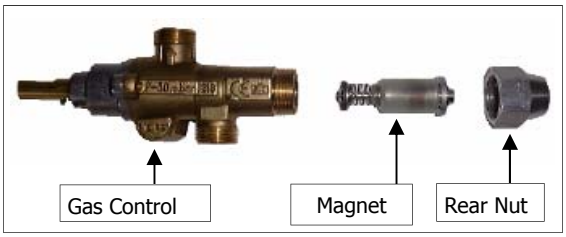

Figure 6.2.7

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6.3 Adjustment / Calibration

6.3.1 Gas control re-greasing

1) Isolate gas supply
2) Remove 2 screws holding shaft plate to gas control body and remove control shaft and plate. Note orientation of shaft for correct re-assembly.

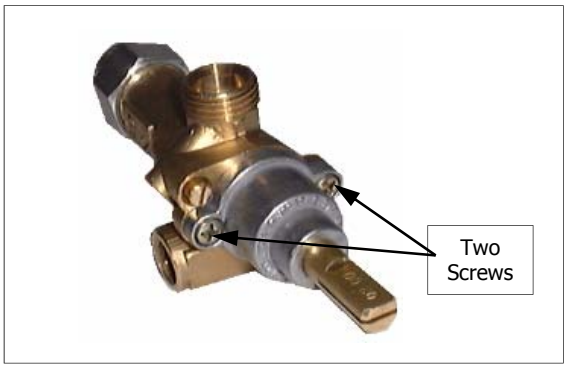

Figure 6.3.1a

3) Using needle nose pliers or similar, pull out gas control spindle, again noting its orientation.
4) Apply a suitable high temperature gas cock grease or lubricant such as ROCOL - A.S.P (Anti scuffing paste) to the outside of the spindle.
5) Replace spindle and re-assemble gas control in reverse order.

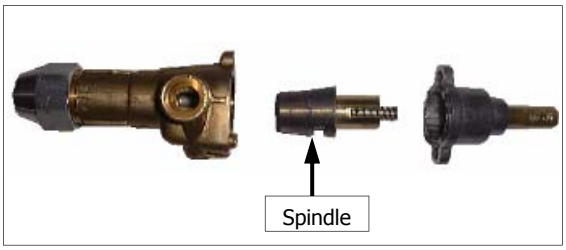

Figure 6.3.1b

6.3.2 Low fire rate adjustment

1) Light the burner and turn the control to the low flame position.
2) Pull off the gas control knob.
3) Adjust low fire screw (located at the top left of the gas valve) to achieve an even, low burn across the salamander burner.

   The recommended factory settings are:

LPG	¼ turn out
Nat	1 turn out

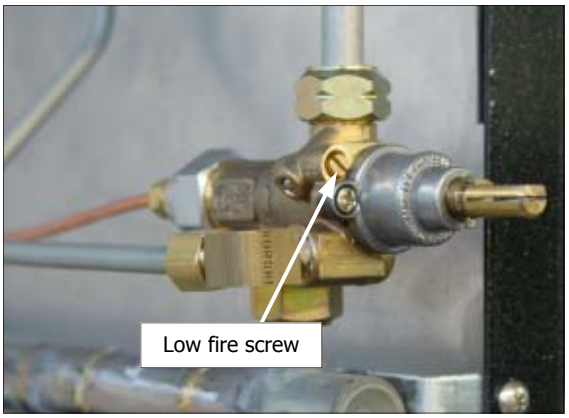

Figure 6.3.2

4) Paint-seal the low fire screw, and replace the control knob.

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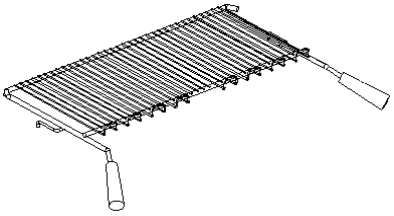
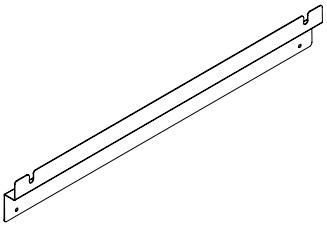
7 Accessories

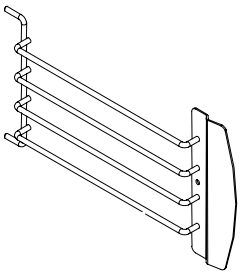
Salamander rack (017963)
Rack handle (013395)



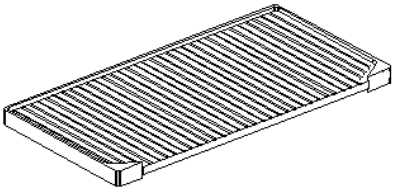
Wall mounting bracket (026096)



Side rack (026093)



Branding plate (013418)



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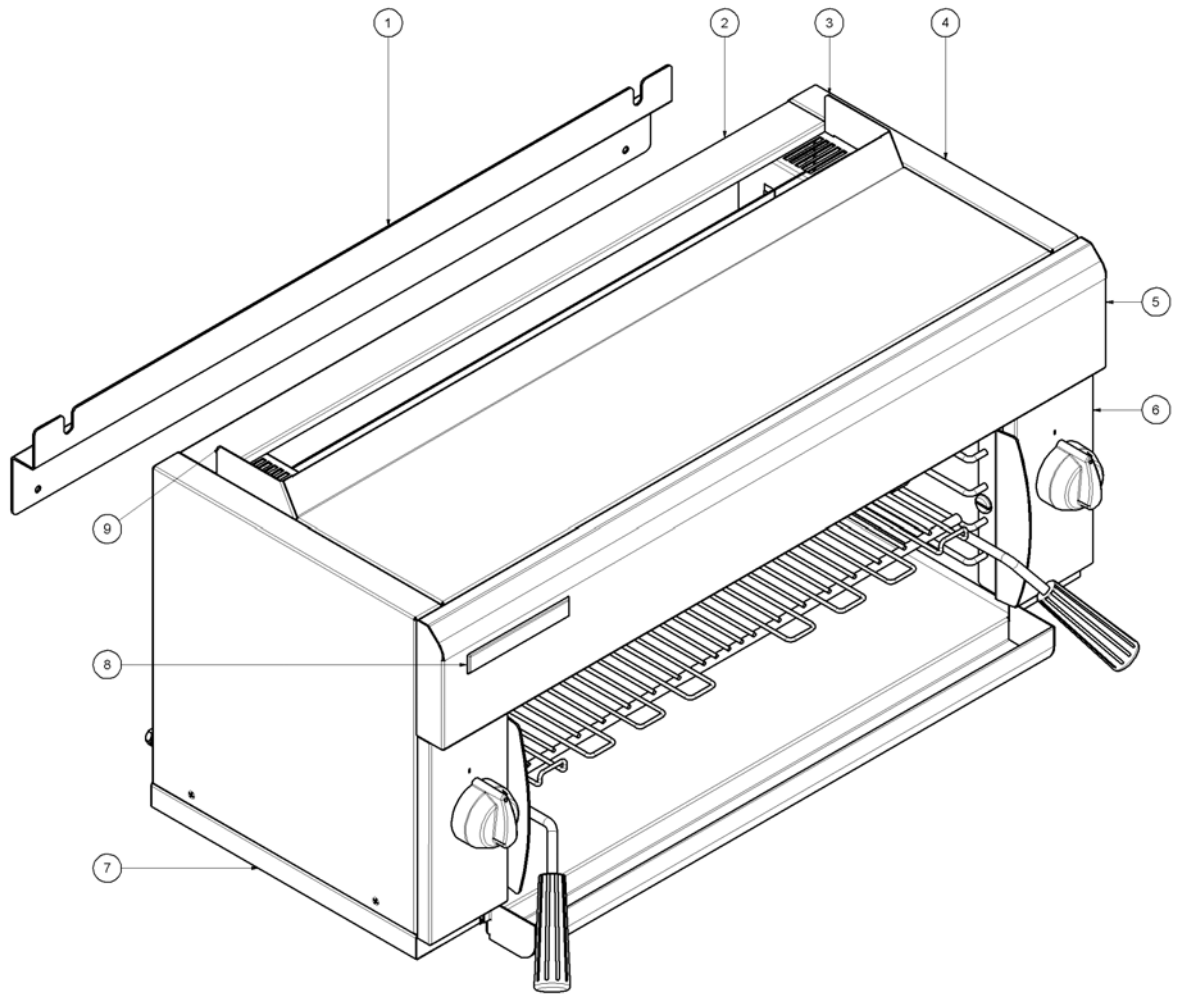
8.1 G91 Main Assembly



Item	Part No	Description
1	026096	WALL MOUNTING BRACKET
2	026086	BACK PANEL
3	026090	FLUE END RH
4	026094	SIDE PANEL
5	227476	FRONT COVER
6	227490	CONTROL PANEL
7	026091	TRAY SUPPORT
8	227960	BLUE SEAL BADGE
9	026089	FLUE END LH

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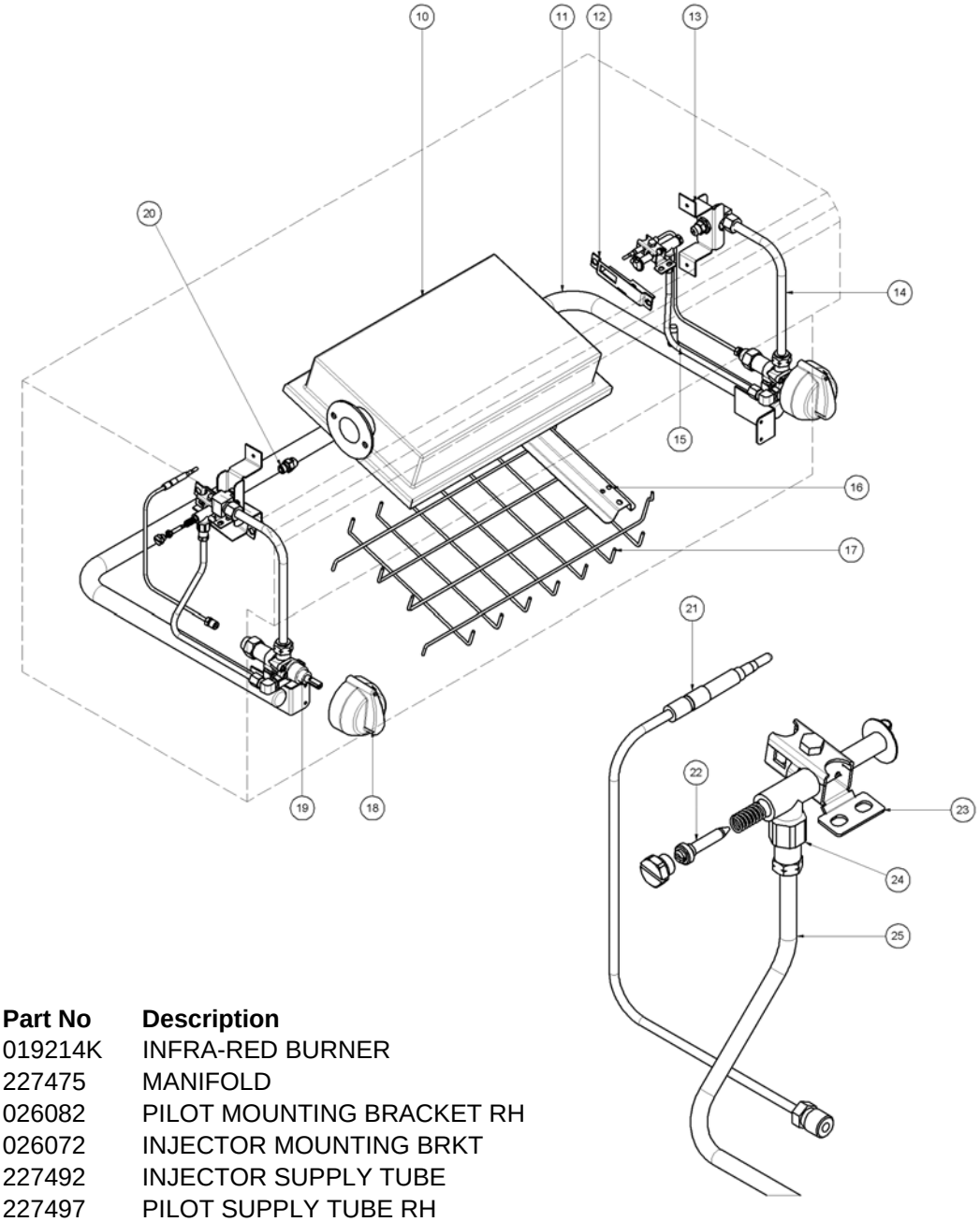
8.2 G91 Gas Assembly



Item	Part No	Description
10	019214K	INFRA-RED BURNER
11	227475	MANIFOLD
12	026082	PILOT MOUNTING BRACKET RH
13	026072	INJECTOR MOUNTING BRKT
14	227492	INJECTOR SUPPLY TUBE
15	227497	PILOT SUPPLY TUBE RH
16	026077	BURNER RETAINING CHANNEL
17	026123	BURNER GUARD
18	227378	KNOB BSEAL 8mm GAS PF
19	017800	GAS CONTROL
20	032190	INJECTOR 1.90mm (NAT GAS)
	032120	INJECTOR 1.20mm (LPG)
	032165	INJECTOR 1.65mm (UK NAT GAS)
	032105	INJECTOR 1.05 mm (UK PROPANE)
21	019218	THERMOCOUPLE 450MM
22	026134	PILOT INJECTOR SIT Ø0.30mm NAT
	026136	PILOT INJECTOR Ø0.20mm LPG/PROPANE
23	026133K	PILOT SIT 100 SERIES KIT
24	026133K	PILOT SIT 100 SERIES KIT
25	227493	PILOT SUPPLY TUBE

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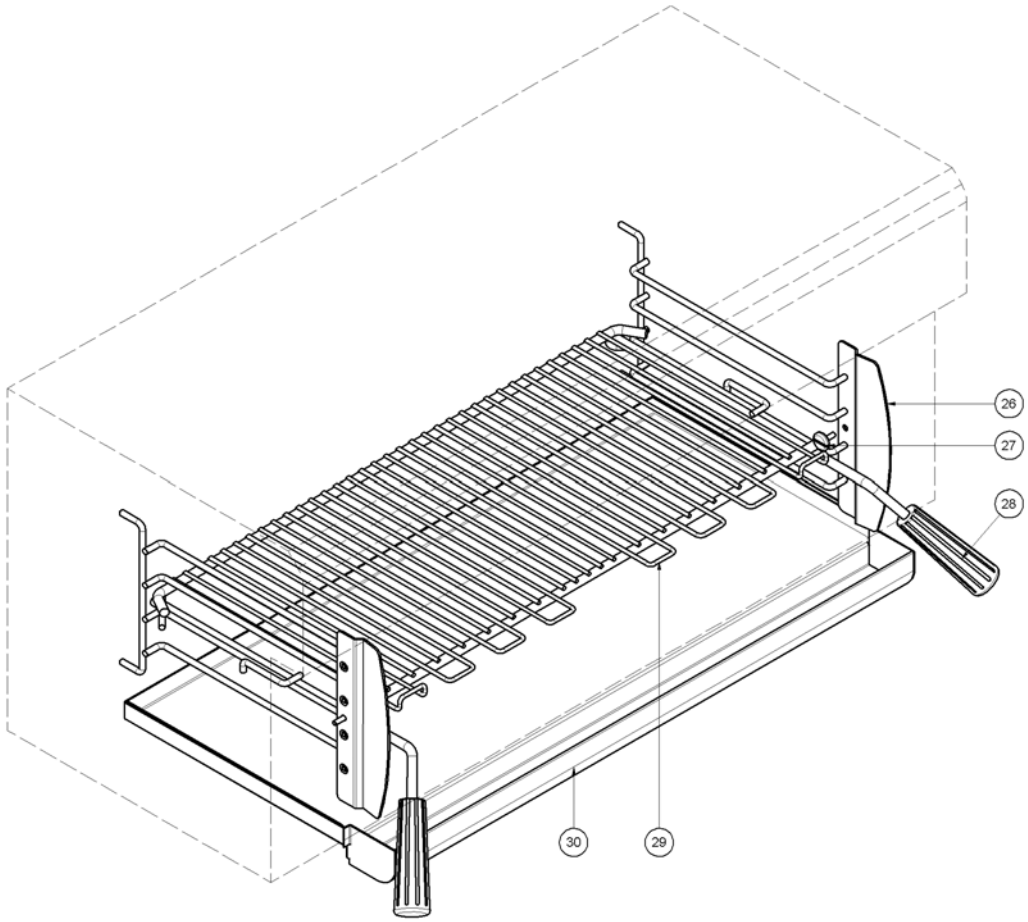
8.3 G91 Racking Assembly



Item	Part No	Description
26	026093	SIDE RACK WA - SALAMANDER
27	227961	SIDE RACK SCREW
28	013395	RACK HANDLE
29	017963	RACK
30	227950	TROUGH TRAY WA

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9 Service Contacts

Australia

VICTORIA - MOFFAT PTY
HEAD OFFICE AND MAIN WAREHOUSE
740 Springvale Road
Mulgrave VIC 3170
Spare Parts Department

Tel (03) 9518 3888
Fax (03) 9518 3838
Free Call 1800 337 963
Fax (03) 9518 3895

NEW SOUTH WALES - MOFFAT PTY
Unit 3/142 James Ruse Drive
Rosehill NSW 2142
Spare Parts

Tel (02) 8833 4111

Free Call 1800 337 963
Fax (03) 9518 3895

QUEENSLAND - MOFFAT PTY
30 Prosperity Place
Geebung QLD 4034
Spare Parts

Tel (07) 3630 8600

Free Call 1800 337 963
Fax (03) 9518 3895

WESTERN AUSTRALIA - MOFFAT PTY
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Fax (08) 9202 6836
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Ontario M3J1Z5

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Fax 416-631-0315

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Fax (03) 389 1276

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Winston-Salem
NC27115

Tel 1800 551 8795
Fax 336 661 9546

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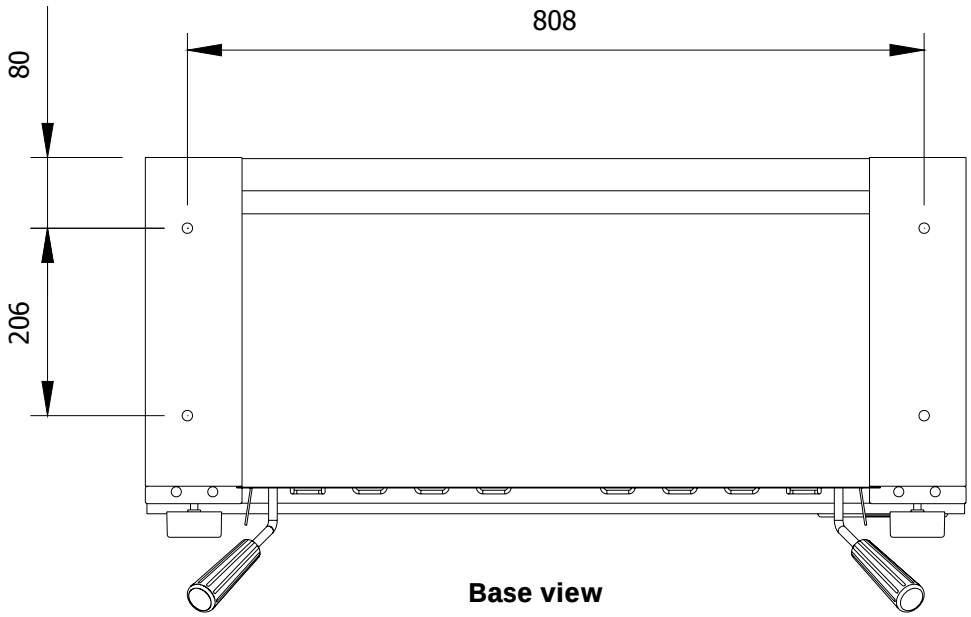
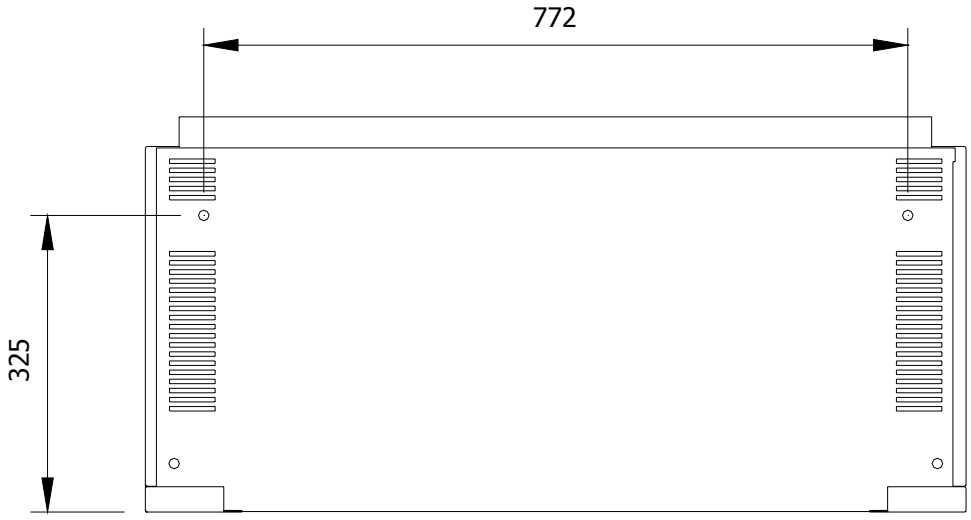
Mounting hole locations



Base view



Rear view

Dimensions shown in millimetres.

All mounting holes are threaded $^{3}/_{8}$" BSW

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Conversion Procedure

CAUTION:

Ensure that the Unit is isolated from the gas supply before commencing servicing

NOTE:

- **These conversions should only be carried out by qualified persons. All connections must be checked for leaks before re-commissioning the appliance.**
- **For all the following conversion instructions, the side panels have to be removed (Remove the two screws at the bottom of each side panel).**
- **All conversion details apply to both L/Hand and R/Hand burners.**
- **For all relevant gas specifications refer to the table at the end of this section.**

Main Burner Injectors

1. Unscrew the main burner injectors ($^1/_2$" A/F).
2. Determine the correct injector sizes for the corresponding gas type from the rating plate affixed to the right hand side panel front bottom corner.
3. Replace with the correct size injectors.

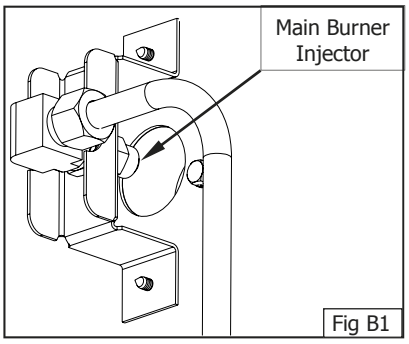

Fig B1

Pilot Injectors

1. Unscrew the cap from the rear of the pilot burners, and unscrew the pilot injectors (taking care not to lose the springs).
2. Determine the correct pilot injector sizes for the corresponding gas from the rating plate affixed to the right hand side panel front bottom corner.
3. Replace with the correct size pilot injectors.

NOTE: Ensure that the Pilot Injectors are fully screwed in.

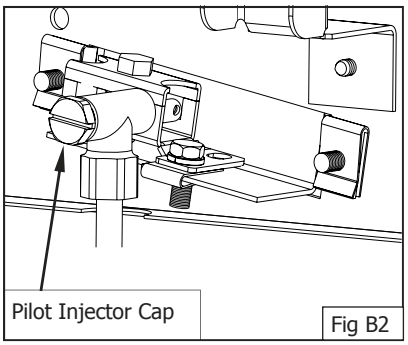

Fig B2

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Gas Regulator

1. Ensure that the gas supply is turned off.
2. Unscrew the slotted cap from the regulator.
3. Unscrew the spring adjusting nut and remove the spring.
4. Fit the correct colour spring for the gas type being used and screw in the spring adjusting nut.
5. Turn on the gas supply and the appliance.
6. Adjust the spring adjusting nut to achieve the correct operating pressure.

NOTE: The operating pressure to be measured at the manifold test point and with all burners operating at the "High Flame" setting.

7. Turn off the mains gas supply and bleed the gas out of the appliance gas lines.
8. Turn on the gas supply and the appliance.
9. Verify the operating pressure remains correct (Re-adjust the regulator if required).
10. Screw the cap back into the regulator.

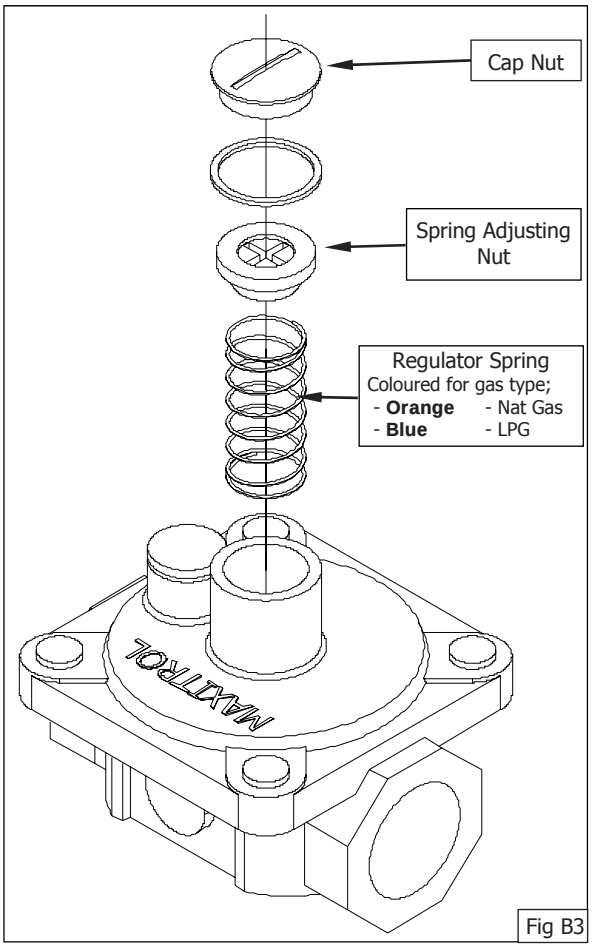

Fig B3

Gas Type Identification Label

On completion of the gas conversion, replace the gas type identification labels, located at:-

- The rear of the unit, above the gas entry port.
- Beside the rating plate.

Low Fire Adjustment

NOTE: If the salamander is fitted with the Adjustable Racking System, this has to be removed to enable the 2 front control panels to be removed. Refer to the "Cleaning" Section for information on how to remove and refit the Adjustable Racking System.

1. Remove the gas control knobs from the front of the unit.
2. Remove the 2 front control panels by removing the two screws (per panel) located at the bottom of each panel.
3. Set the burner low fire adjustment. The low fire screw on the gas control valve should be screwed fully in, then unscrewed by the measurement shown in the "Gas Specifications" table.

NOTE: The "Low Fire Screw" should be sealed with coloured paint on completion of the low fire adjustment.

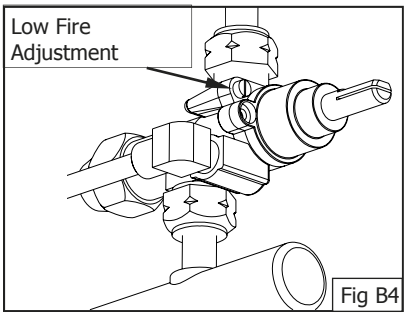

Fig B4

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Commissioning

Before leaving the converted installation;

1. Check all gas connections for leakages using soapy water or other gas detecting equipment.

WARNING:

DO NOT USE A NAKED FLAME TO CHECK FOR GAS LEAKAGES.

2. Check the following functions in accordance with the operating instructions specified in the "Operation" section of the User manual.
   - Light the Pilot Burners.
   - Light the Main Burners.
   - Check the Low Fire burner operation.
   - Check the High Fire burner operation.
   - Ensure all controls operate correctly.

NOTE: If for some reason it is not possible to get the unit to operate correctly, shut off the gas supply and contact the supplier of this unit.

Gas Specifications

- Non UK Only:

		Natural Gas (G20)	LP Gas (Propane) (G31)
Main Burner Injectors		Ø 1.90 mm	Ø 1.20 mm
Pilot Burner Injectors		0.30	0.20
Low Fire:	**Size**	Ø 1.00 mm	Ø 1.00 mm
	Adjustment	2 turns out (ccw)	½ turn out (ccw)
Operating Pressure		1.00 kPa (*)	2.50 kPa (*)
Regulator Spring		'Orange'	'Blue'

- UK Only:

		Natural Gas (G20)	Propane (G31)
Main Burner Injectors		Ø 1.65 mm	Ø 1.05 mm
Pilot Burner Injectors		0.30	0.20
Low Fire:	**Size**	Ø 1.00 mm	Ø 1.00 mm
	Adjustment	1 turn out (ccw)	¼ turn out (ccw)
Operating Pressure		15 mbar (*)	37 mbar
Regulator Used		Yes	No

NOTE: * The burner operating pressure is to be measured at the manifold test point with all burners operating at full setting. The operating pressure is ex-factory set and not to be adjusted, apart from when converting between gases, if required. (Refer to the 'Gas Conversion' section for details).

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